

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015599**Date Inspected:** 09-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:** **Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:** **Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:** **Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:** **Yes No N/A****Delayed / Cancelled:** **Yes No N/A****Bridge No:** 34-0006**Component:** Bay 4**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Bay 4

QA Inspector performed Phased Array Ultrasonic Testing (PAUT) following the guide lines of UT procedure titled "Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds, # UT 04-0120F4 PJP Rib Weld" after ZPMC welding personnel performed weld repairs of tacked areas of the Partial Joint Penetration (PJP) welds joining u-ribs to deck plate. The deck panels examined are as follows:

DP3125-001: 1 tack weld locations found compliant and 0 tack weld locations found non-compliant.

DP3119-001: 12 tack weld locations found compliant and 4 tack weld locations found non-compliant.

QA inspector performed conventional Ultrasonic (UT) Inspection on deck panel tack weld areas. The inspection is preliminary prior to using the phased array (PAUT) testing system to verify indications found with conventional Ultrasonic testing. QA inspector performed UT on deck panel DP3100-001, 12 ribs, 24 welds, 184 total tack welds inspected.

Weld 1 scanned 9 locations with 1 indication.

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Weld 2 scanned 9 locations with 0 indications.
Weld 3 scanned 9 locations with 0 indications.
Weld 4 scanned 9 locations with 0 indications.
Weld 5 scanned 9 locations with 1 indication.
Weld 6 scanned 9 locations with 0 indications.
Weld 7 scanned 9 locations with 3 indications.
Weld 8 scanned 9 locations with 0 indications
Weld 229 scanned 9 locations with 3 indications.
Weld 230 scanned 9 locations with 0 indications.
Weld 231 scanned 9 locations with 0 indications.
Weld 232 scanned 9 locations with 0 indications.
Weld 233 scanned 9 locations with 1 indication.
Weld 234 scanned 9 locations with 4 indications.
Weld 235 scanned 9 locations with 0 indications.
Weld 236 scanned 9 locations with 0 indications.
Weld 237 scanned 5 locations with 0 indications.
Weld 238 scanned 5 locations with 0 indications.
Weld 239 scanned 5 locations with 0 indications.
Weld 240 scanned 5 locations with 1 indication.
Weld 241 scanned 5 locations with 0 indications.
Weld 242 scanned 5 locations with 0 indications.
Weld 243 scanned 5 locations with 0 indications.
Weld 244 scanned 5 locations with 1 indication.

Tack weld locations found non-compliant are marked on U-rib and deck plate for ZPMC's reference for repair.
See Caltrans U-rib to Deck Panel- Tack Weld Assessment sheets dated 9th July, 2010 for further information on PAUT inspections.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Dsouza,Christopher	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
